

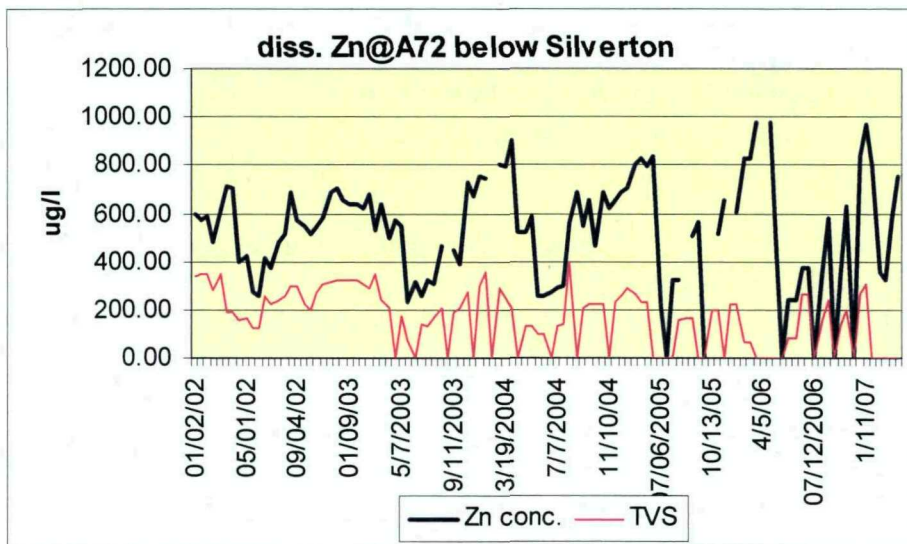
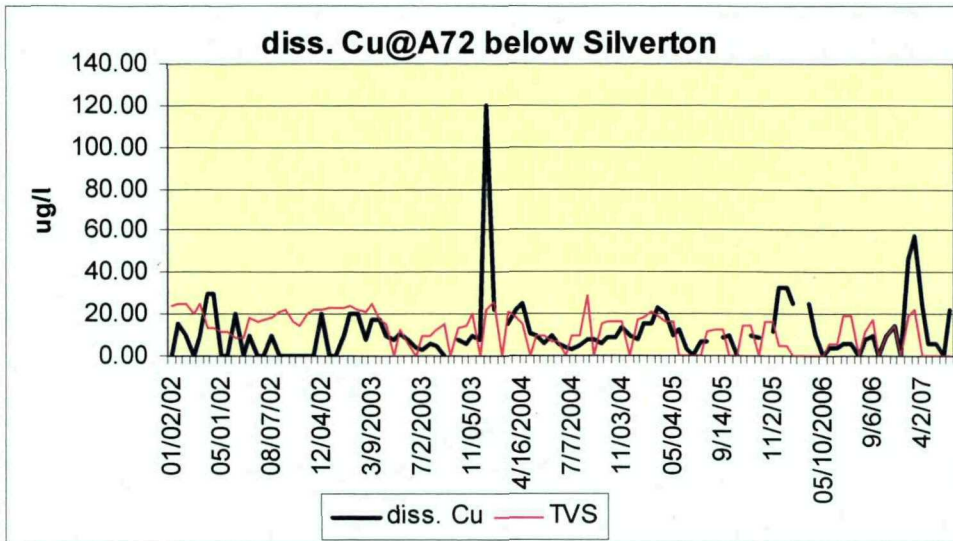
**Upper Animas Mining District  
EPR Management Briefing  
May 13, 2010**

**Background**

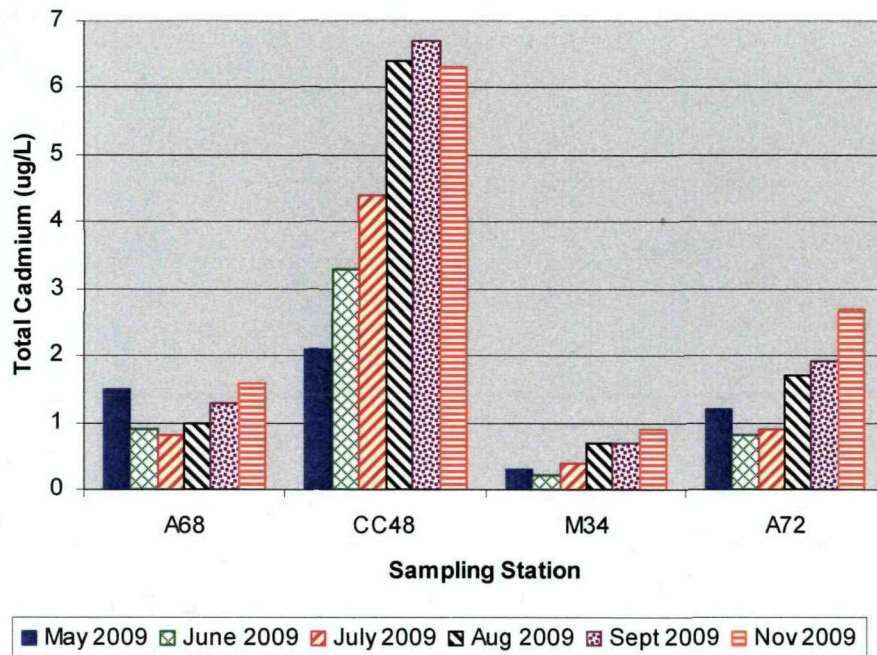
- Since 1994, there have been remediation efforts in Mineral Creek, the Upper Animas, and Cement Creek.\
- BLM has had a large Abandoned Mined Land focus in the entire watershed since the mid 1990s.
- Others, using EPA, state, and mining interests' funds have spent millions in the watershed doing primarily waste site remediation.
- In the Cement Creek drainage, active water treatment began by SMC in 1970s and was updated over the years by Sunnyside. Since 1996, the American Tunnel has had three bulkheads installed, flow has decreased from 1,600 gpm to about 150 gpm. The Red & Bonita Mine, and other upgradient adits' and seeps discharges are now making up the difference in the American Tunnel flow. Gladstone's active water treatment was intermittent from about 2002 – 2005 and stopped in 2005; settling ponds reclaimed in 2006.

**Problem**

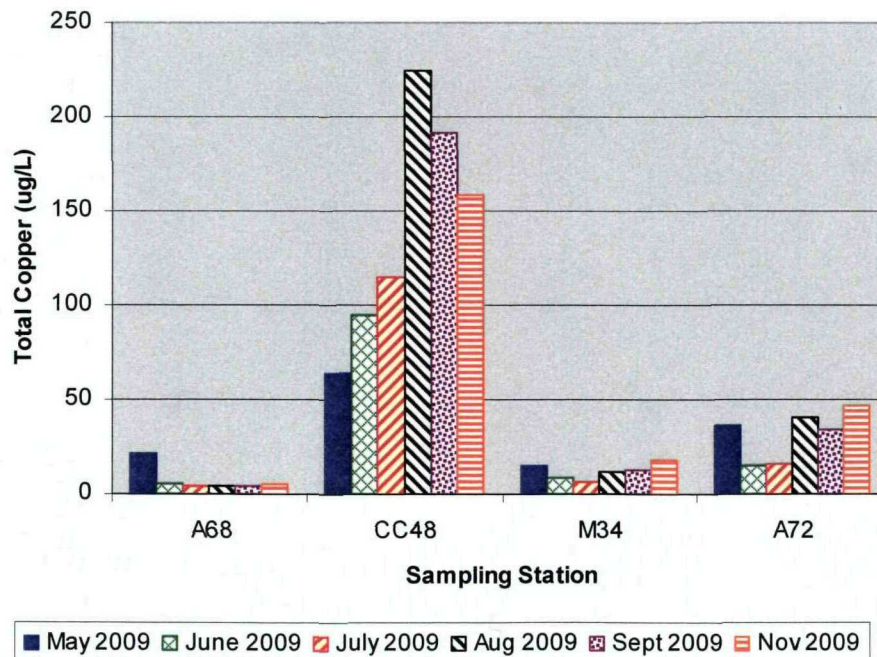
- Upper Cement Creek still contributes a large negative impact on the TMDL compliance point, known as A72. Since
  - Landowners: BLM/USFS and Private landowners and mining interests
- A72 is about 8 miles downstream of Gladstone. (See table showing relationship of five Upper Cement Creek sources to the 2001 compilation of 34 adits' impacts on loads. Various waste dumps also, but adits contribute about 85% of loads, mine waste about 15%).
- Therefore Cement Creek is a focus area for EPA and BLM.



**Animas River - Mainstem and Tributary  
2009 Total Cadmium Concentrations**

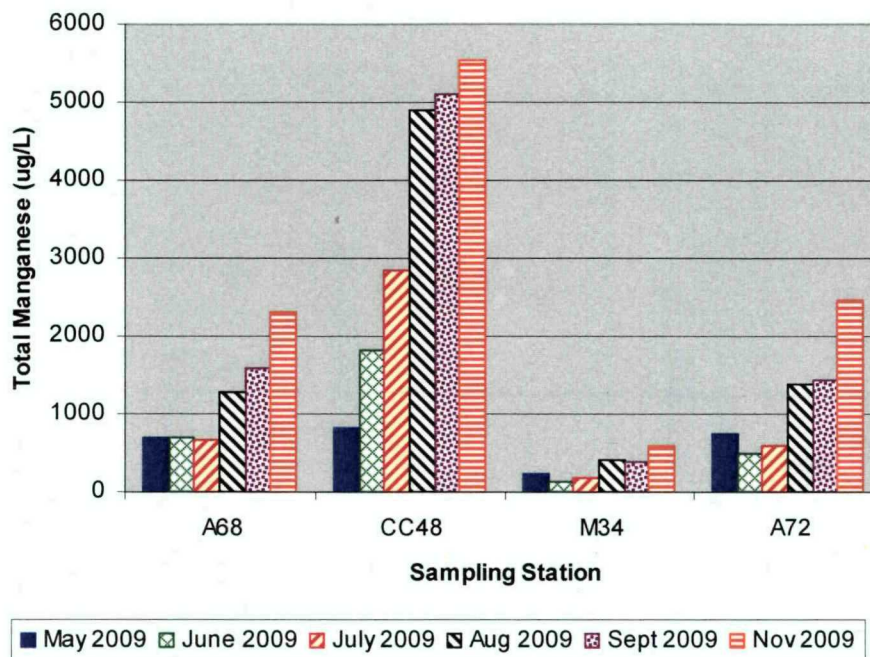


**Animas River - Mainstem and Tributary  
2009 Total Copper Concentrations**

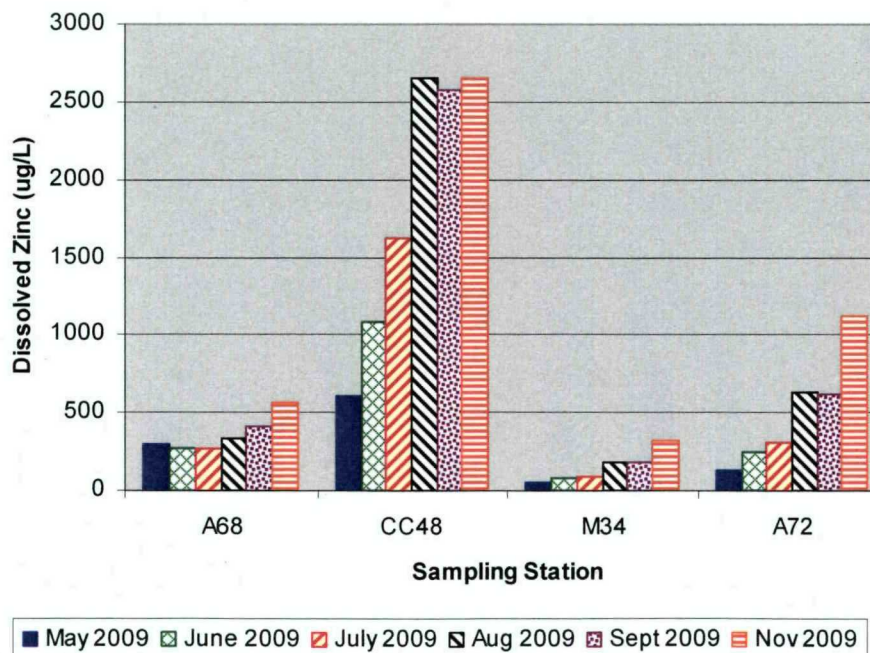




**Animas River - Mainstem and Tributary  
2009 Total Manganese Concentrations**



**Animas River - Mainstem and Tributary  
2009 Dissolved Zinc Concentrations**



### **Potential Solutions**

- Water Treatment – BLM willing to build a WTP, but can't do O&M
- Plug adits
- Combine WTP and plugging
- Remove American Tunnel bulkheads (three) and treat water indefinitely from one location.

### **Possible EPA Approaches**

- Coordinated removal with EPA and BLM/USFS + Enforcement actions on viable PRPs (including leveraging landowner contributions where applicable)
- Fund lead removal actions + BLM/USFS
- Enforcement of PRP-lead actions (Sunnyside + others)
- Use of settlement funds from SMC
- NPL

### **Local Concerns**

- Against listing
- Want mining in their future

### **Watershed Challenges**

- Lack of water treatment in Gladstone is impacting the TMDL compliance point below Silverton at A72.
- Water quality flow and loads have been changing since the last bulkhead went into the American Tunnel (2002).
- The worst sources are the Gold King Mine 7 level; Red & Bonita Mine, American Tunnel, and the Mogul Mine (Grand Mogul to lesser degree).

### **Ongoing Issues/Considerations**

- BLM may not support listing
- CDPHE and past CD with Sunnyside
- State has lead on ASARCO \$4 Million trust from Silver Lake settlement

### **Next Steps**

- PRP search and viability determined
- Technical info/data
- Agency(ies) discussions regarding preferences and implications
- Communications with local government